

## BECAUSE YOU LOVE YOUR DOG

Sterilization surgery doesn't just prevent unwanted puppies; it prevents many health and behavioral problems as well: By Camille J. McArdle, D.V.M.

I had another case come into the clinic today, another heartbreak that didn't have to be. This time it was a huge tumor in the chest that had metastasized from mammary cancer. Chelsie was a sweet, gentle 9-year-old English Springer Spaniel who should have lived well into her teens. Instead, I found myself inserting the final needle into her vein while her stunned family sobbed. I felt as though I had a big lump in my chest, too.

But my feelings were more than sadness and empathy. I also felt anger, because Chelsie's death at this point in her life was so unnecessary and so preventable. Her owners hadn't gotten around to spaying her until we found the breast tumor two years before. Although we removed that tumor and spayed her at the same time, the seeds of cancer had already begun their insidious spread throughout her body.

Last week I also had to treat ugly and painful perianal adenomas on a dog that had never been neutered because its owner thought it would be "cruel to take away his manhood." A few days ago I spayed a dog ill from raging uterine infection. That surgery cost the owner four times what a routine spay would have cost. Another client brought in a pet he had become afraid of because of its aggressiveness and biting.

Almost every day in my veterinary practice I am reminded in some way of the many reasons why we spay and neuter dogs. These surgeries, when performed at the proper time in a dog's life, are relatively simple, well-tolerated by the pup, and they represent one of the best forms of preventive medicine there is.

### BENEFITS TO HEALTH

For the approximate cost of one fancy evening out, you can give your dog a tremendous health advantage for the rest of its life. Sterilization surgery is inexpensive compared to the other costs of keeping a dog healthy. Furthermore, it is a one-time expense rather than something that needs to be done yearly.

An unspayed female undergoes two cycles a year, during which her body experiences dramatic hormonal changes. The "heat" period lasts two to three weeks. Six weeks before this heat, however, certain hormones begin to increase. After the heat is over, other hormones take over and prepare the body for pregnancy and birth. If the female is not bred, she still experiences a "false pregnancy." Her uterus swells up and sometimes fills with fluid. Her teats may engorge with milk.

In the wild, dogs are pack animals. The females usually go into heat at about the same time. The false pregnancy phenomenon is Nature's way of ensuring that any pups born to the pack will be nurtured even if their mother dies while giving birth. One of the other females can take over and nurse the orphan puppies.

Nature, though, is geared toward the survival of the species, not the survival of the individual. These strong hormonal events put the female dog at high risk for certain reproductive diseases. Pyometra is a term that describes a uterus filled with pus. Pyometra is a life-threatening infection that is not always recognized in time. This disease can occur during the false pregnancy period, and the dog can become deathly ill in a manner similar to toxic shock syndrome in humans. The uterus is then a source of deadly toxins and must be removed, yet surgery on a sick animal is stressful and dangerous. It is also expensive because of the intense medical care these dogs require.

Another hormonally driven disease is breast cancer. Complications from this disease claim the lives of many dogs each year. Malignant mammary tumors are seen almost exclusively in unspayed females or in dogs that were not spayed until after they had gone through several heats. Research shows that there is a significant increase in a dog's chances of developing breast tumors with each heat she experiences. Females spayed before they ever have a heat cycle are at an extremely low risk for mammary cancer.

In males, there are also hormone-related diseases that can be prevented by neutering. In unneutered males, the prostate gland can become infected or inflamed (prostatitis) or can become tumorous. The prostate is a gland near the bladder. It contributes to seminal fluid when the dog ejaculates. This gland is responsive to the male hormone testosterone. Often, by the time signs of disease are noticed, it has progressed considerably and may not be correctable.

Perianal adenomas also tend to be testosterone-dependent. These are growths around the anus that can crack and bleed and become severely infected and painful. Medical therapy for these can take months. Neutering

is a required part of treatment because, again, the sex hormones feed the disease. There are some other conditions, such as a certain kind of spinal arthritis, that are more common in unneutered males. Testicular tumors, obviously, never occur in a castrated dog.

### PERSONALITY PLUS

Aside from the health advantages, the other major benefit to spaying or neutering is the change in the dog's behavior. There are many behavior characteristics associated with the sex hormones that can be offensive or even dangerous under the wrong set of circumstances. When a puppy is sterilized before it enters puberty, most of these behaviors will not develop.

The difference between a neutered and an intact dog is most notable in the male. As an unneutered male grows into adulthood, he is likely to become more territorial and have more desire to roam. A female in heat in the area can lead him to amazing feats of athleticism as he figures out how to get over or under the fence. Unfortunately, dogs with breeding on the mind do not always pay attention to cars or other hazards.

The intact male is much more likely to do such things as lick his genitals in the middle of the living room, lift his leg and pee indoors, "hump" the kids or stop to sniff and water every tree, bush, hydrant and signpole you encounter on a walk. Many intact males are dog--aggressive--that is, they want to fight other males --so these dogs cannot always be trusted in outside settings. Some are also people-aggressive, which is dangerous. Neutering after this behavior has developed often does not correct the problem.

Females, too, may become territorial and somewhat unpredictable as their hormonal cycles wax and wane. Some unspayed females display bizarre activities at the time of false pregnancy, such as nesting behavior and excessive whining. The most consistent difference, however, is more subtle; The unspayed female reserves a part of herself for her breeding role. This may not be noticeable unless you have had several of each, but in general, the spayed females seem to be more outgoing and loving to their humans than are the intact females.

### INSIDE THE OPERATING ROOM

Owners worry about what happens to their dog in the operating room. This concern is expected and natural. However, small-animal practitioners perform many spay and neuter operations per week, so veterinarians tend to be good at these surgeries. With this much practice, veterinarians are able to develop their techniques so they can do these procedures quickly, carefully and with minimum trauma to the patient.

Spay surgery (ovariohysterectomy) begins with a small incision made through the skin, fat and belly wall. In a young female the uterus is fairly small, no bigger around than a pencil, even in large breeds. It is shaped like the letter V, with each tube connecting to an ovary and the base connecting to the cervix. Blood vessels are tied off so they do not bleed into the abdomen, the cervix is tied shut, and the uterus and ovaries are removed from the belly. The body wall, subcutaneous fat and skin are then closed up with three separate layers of sutures which will dissolve slowly after they are no longer needed.

Neutering (orchidectomy) is an easier surgery to perform because it is usually not necessary to enter the abdomen. The testicles lie just under the skin in the scrotum. One at a time they are maneuvered through a tiny incision. Their supporting tubes and blood vessels are then tied off, and the incised ends are tucked back into the incision. Closure often requires only a couple of stitches. The scrotal sac will still be there; with the testicles gone, it will shrink over time.

These surgeries can be done at almost any age, including in puppies as young as 8 weeks. Young pups tolerate anesthesia well and tend to bounce back quickly because of their high metabolic rates. Most veterinarians prefer to do spays and neuters at 6 months of age. At this age the dog is close to being its adult size, but the reproductive organs and blood vessels are still somewhat immature. In an older dog these tissues tend to be encased in fat and are therefore slightly more difficult to remove cleanly.

### AFTERCARE

You might be surprised at how fast your pup is up and about after surgery. Many owners have difficulty keeping the dog from being too active. Usually, after a good night's sleep, they eat a normal amount and act as if nothing ever happened.

Complications, such as soft swelling under the skin or an inflamed incision, can be minimized by restricting exercise for about a week and preventing too much licking. Leash-walking is fine, but rough and

tumble play is not. Your veterinarian may dispense or suggest a foul-tasting substance that can be dabbed around the incision to discourage licking. Depending on the type of suture material used, the skin stitches will be removed after 10 - 14 days, or they will come out on their own within a few weeks.

Our dogs give us so much and ask for so little in return. They trust us to take good care of them, to help them stay safe and healthy. Spaying or neutering is truly an act of love for your dog.

#### BUT WHAT ABOUT.....?

At my practice I hear reasons daily why people do not have their dogs "fixed." Here are some of them and the answers I give:

#### WHEN DOGS ARE FIXED THEY GET FAT.

The metabolism normally slows down as a pup matures into an adult whether it is fixed or not. While sterilization surgery does decrease calorie-burning activities such as roaming and fighting, it does not cause obesity. Overfeeding is the cause. Weight control is an important part of the care of any pet.

#### I WANT MY KIDS TO EXPERIENCE THE MIRACLE OF BIRTH.

Most dogs give birth in private. It can be a long, drawn-out process rife with complications. Most kids do not have the attention span for more than one puppy, so the parents end up resenting all this work for an unappreciative audience. And if things do not go right, it can be devastating. It's better for little Jessica to watch a video or read a book than to watch her pet bleed to death after whelping.

#### SHE'S PUREBRED. I CAN MAKE MONEY SELLING HER PUPPIES.

Are you prepared to pay in advance for the hip clearances and eye checks? What if she needs a caesarian section? What if one or more of the pups becomes ill with puppy strangles or parvo? How about the costs of the stud fee, deworming, vaccinations and advertising the litter? At best, most breeders are lucky to break even.

#### I WANT TO STUD HIM OUT.

Is he a successful show dog, or does he hold performance titles: Has he had his hip, eye and thyroid clearances? The market for stud service from unproven males is just not there.\_